

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method for applying an aqueous coating on a metal substrate, comprising the steps of:

retrieving a metal substrate with a grasping element of an articulative electromechanical device;

~~bringing immersing said substrate utilizing said electromechanical device into contact with in~~ a first aqueous autodepositing composition for a predetermined period of time and forming a first film on a surface of said substrate;

removing said substrate from the first aqueous autodepositing composition, said removed substrate being wet; and

~~articulating said wet substrate after removal from contact with said first composition for a predetermined period of time with said electromechanical device to provide a uniform coating thickness.~~

2. (Currently Amended) A method according to claim 1, wherein said first film upon drying has a dry film thickness of 2.5 to 25.4 micrometers.

3. (Original) A method according to claim 2, wherein said contact with said first composition is from 1 to 180 seconds.

4. (Currently Amended) ~~The A~~ method according to claim [[2]] 1, including wherein said articulating step is performed while said metal substrate while it is ~~in contact with immersed in~~ said first aqueous autodepositing composition ~~and after contact with said first autodepositing composition.~~

5. (Currently Amended) A method according to claims [[2]] 4, further comprising the step of drying said substrate in a drying device after said first wet autodeposited film has been formed.

6. (Currently Amended) A method according to claim 1, further comprising the steps of bringing immersing said substrate ~~into contact with~~ in a second aqueous autodepositing composition for a predetermined period of time to form a second film on said substrate, and articulating said substrate either immersed in said second aqueous composition, or after removal from ~~contact with~~ said second composition, or a combination thereof, for a predetermined period of time[[,]] with said electromechanical device to provide a uniform coating thickness.

7. (Currently Amended) A method according to claim 6, wherein upon drying said second film has a dry film thickness of 2.5 to 25.4 micrometers.

8. (Currently Amended) A method according to claim [[7]] 6, wherein said first autodepositing composition is [[a]] an aqueous metal treatment, or an aqueous adhesive composition, and wherein said second autodepositing composition is [[a]] an aqueous primer composition or an aqueous adhesive overcoat composition.

9. (Currently Amended) A method according to claim [[2]] 8, wherein said first aqueous composition comprises a) [[a]] an aqueous metal treatment comprising an acid, and [[an]] a aqueous dispersion of a phenolic resin, or b) an aqueous adhesive composition comprising a flexibilizer, and an acid.

10. (Currently Amended) A method according to claim [[7]] 9, wherein said second composition is a) [[a]] an aqueous primer comprising a phenolic resin aqueous dispersion and a flexibilizer, or b) an aqueous adhesive overcoat

composition comprising a flexibilizer, and phenolic resin aqueous dispersion and a crosslinker.

11. (Currently Amended) A method according to claim [[7]] 10, wherein substrate is dried in a drying device after coating with each said first and second aqueous compositions, wherein said drying utilizes infra-red radiation, radio frequency energy, convection currents, air currents, heated zones, forced air, or induction, or a combination thereof, ~~and wherein said bringing of said substrate into contact comprises immersion.~~

12. (Currently Amended) A method according to claim 3, ~~wherein bringing said substrate into contact comprises immersion, and wherein said electromechanical device comprises a microprocessor which operatively controls a robot arm.~~

13. (Original) A method according to claim 12, wherein said immersion ranges from 3 to 60 seconds.

14. (Cancelled)

15. (Currently Amended) A method according to claim [[4]] 5, wherein said electromechanical device comprises a robot arm, and where said grasping element is a grasping means, pin, hook, hanger, expandable means, compression grip, insertion grip, suction means, or a magnet, or a combination thereof, wherein said substrate displaces at least 0.25% of a volume of the first autodepositing composition in a tank, and wherein said first composition has a bath turnover of about 1 hour to about 5 days.

16. (Currently Amended) A method according to claim 11, wherein said electromechanical device comprises a robot arm, and where said grasping element is a grasping means, pin, hook, hanger, expandable means, compression grip, insertion

grip, suction means, or a magnet, or a combination thereof, wherein said substrate displaces at least 0.25% of a volume of the first autodepositing composition in a tank, and wherein said first composition has a bath turnover of about 1 hour to about 5 days.

17. (Currently Amended) A method according to claim [[4]] 5, further including the step of cleaning the substrate utilizing a cleaning device, and wherein said cleaning device comprises mechanical cleaning, or chemical cleaning, or a combination thereof.

18. (Currently Amended) A method according to claim 11, further including the step of cleaning the substrate utilizing a cleaning device, and wherein said cleaning device comprises mechanical cleaning, or chemical cleaning, or a combination thereof.

19. (Currently Amended) A method for coating a metal substrate, comprising the steps of:

retrieving a metal-based substrate with a grasping element of an electromechanical device;

bringing said substrate utilizing said electromechanical device into contact with a first autodepositing composition for a predetermined period of time and forming a first film on a surface of said substrate;

removing said substrate from said first autodepositing composition, said removed substrate being wet;

articulating said wet substrate after removal from contact with said first composition for a predetermined period of time[[,]] with said electromechanical device to provide a uniform coating thickness;

bringing said coated substrate into contact with a second autodepositing composition for a predetermined period of time and forming a second film on said substrate; [[and]]

removing said substrate from said second autodepositing composition, said removed substrate being wet; and

articulating said wet substrate either after removal from contact with said second aqueous composition, or a composition thereof for a predetermined period of time[[,] with said electromechanical device to provide a uniform coating thereon.

20. (Currently Amended) A method according to claim 19, wherein said first and second films, individually independently, upon drying have a dry film thickness of 2.5 to 25.4 micrometers.

21. (Currently Amended) A method according to claim 20, wherein said contact with said first and second films compositions, individually independently, is from 1 to 180 seconds.

22. (Currently Amended) A method according to claim [[21]] 19, wherein said including articulating step is performed while said metal substrate while it is in contact with said first autodepositing composition and after contact with said first autodepositing composition, and wherein including [[said]] articulating step is performed while said metal substrate while it is in contact with said second autodepositing composition and after contact with said second autodepositing composition.

23. (Currently Amended) A method according to claim [[20]] 22, further comprising the steps of drying said substrate in a drying device after said first wet autodeposited film has been formed, and drying said substrate in a drying device after said second wet autodeposited film has been formed.

24. (Original) A method according to claim [[21]] 22, wherein said first autodepositing composition is [[a]] an aqueous metal treatment, or an aqueous

adhesive composition, and wherein said second autodepositing composition is [[a]] an aqueous primer composition or an aqueous adhesive overcoat composition.

25. (Currently Amended) A method according to claim [[21]] 24, wherein said first aqueous composition comprises a) [[a]] an aqueous metal treatment comprising an acid, and a phenolic resin, or b) an aqueous adhesive composition comprising a flexibilizer, and an acid, and wherein said second aqueous composition is a) [[a]] an aqueous primer comprising a phenolic resin and a flexibilizer, or b) an aqueous adhesive overcoat composition comprising a flexibilizer, and phenolic resin and a crosslinker.

26. (Currently Amended) A method according to claim 23, wherein each said drying step, independently, utilizes infra-red radiation, radio frequency energy, convection currents, air currents, heated zones, forced air, or induction, or a combination thereof, and wherein each said ~~bringing of said substrate into contact step~~ comprises immersion.

27. (Currently Amended) A method according to claim [[21]] 25, wherein each said [[bring]] ~~said substrate into contact step~~ comprises immersion, and wherein said electromechanical device comprises a microprocessor which operatively controls a robot arm.

28. (Currently Amended) A method according to claim 27, wherein said ~~immersion ranges from 3 to 60 seconds~~ articulation of said substrate while it is in contact with said first autodepositing composition and while it is in contact with said second autodepositing composition includes removal of entrapped air.

29. (Cancelled).

30. (Currently Amended) A method according to claim [[21]] 22, wherein said electromechanical device comprises a robot arm, and where said grasping element is a grasping means, pin, hook, hanger, expandable means, compression grip, insertion grip, suction means, or magnet, or a combination thereof, wherein said substrate displaces at least 0.25% of a volume of the first autodepositing composition in a tank, and wherein said first composition has a bath turnover of about 1 hour to about 5 days.

31. (Currently Amended) A method according to claim [[25]] 26, wherein said electromechanical device comprises a robot arm, and where said grasping element is a grasping means, pin, hook, hanger, expandable means, compression grip, insertion grip, suction means, or magnet, or a combination thereof, wherein said substrate displaces at least 0.25% of a volume of the first autodepositing composition in a tank, and wherein said first composition has a bath turnover of about 1 hour to about 5 days.

32. (Currently Amended) A method according to claim [[21]] 22, further including the step of cleaning the substrate utilizing a cleaning device, and wherein said cleaning device comprises mechanical cleaning, or chemical cleaning, or a combination thereof.

33. (Currently Amended) A method according to claim [[25]] 27, further including the step of cleaning the substrate utilizing a cleaning device, and wherein said cleaning device comprises mechanical cleaning, or chemical cleaning, or a combination thereof.

34. (Currently Amended) A method for applying an aqueous coating on a metal substrate, comprising the steps of:

retrieving a metal substrate with a grasping element of an articulative electromechanical device;

bringing said substrate utilizing said electromechanical device into contact with a first aqueous autodepositing composition by immersing ~~in a first aqueous autodepositing composition~~ therein for a predetermined period of time and forming a first film on a surface of said substrate;

articulating said substrate while immersed in said first aqueous composition, or after removal from contact, or articulating while immersed and after removal from contact with said first aqueous composition, wherein after removal said substrate is wet, said articulation after removal applied for a predetermined period of time with said electromechanical device to provide a uniform coating thickness, and

wherein said substrate displaces at least 0.25% of a volume of the first autodepositing composition in a tank, and wherein said first composition has a bath turnover of about 1 hour to about 5 days.